DOCUMENT RESUME

ED 110 199 PS 008 004

AUTHOR Needels, Margaret; Stallings, Jane
TITLE Classroom Processes Related to Absence Rate.
INSTITUTION Stanford Research Inst., Menlo Park, Calif.
PUB DATE Mar 75
NOTE 23p.; Paper presented at the Annual Meeting of the American Educational Research Association (Washington, D.C., March 31-April 3, 1975)

EDRS PRICE MF-$0.76 HC-$1.58 PLUS POSTAGE
DESCRIPTORS Attendance Patterns; Check Lists; *Class Attendance; *Classroom Environment; *Classroom Observation Techniques; Classroom Research; Correlation; *Primary Education; *Teaching Methods
IDENTIFIERS *Project Follow Through Planned Variation Program

ABSTRACT

This study explored the relationship between classroom instructional processes and the average number of student absences in first and third grades. The data were collected in a total of 166 classrooms as part of the Follow Through Planned Variation Program. The Classroom Observation Instrument, developed by Stanford Research Institute, was used to record classroom activities, instructional methods, interpersonal from school records. Since the data were correlational, causal effects could not be attributed to the instructional processes. However, the results showed 56 variables for first grade and 65 for third grade to be significantly correlated with absence rate after adjusting for baseline achievement scores. Children in both first and third grades seemed to be absent less in classrooms where there was a higher degree of child independence, child questioning, adult response, individualized instruction, and open-ended questions and where children and adults showed more positive affect. Child absences appeared to be more frequent in classrooms where children often worked in large groups, where adults used direct questions in academic work, and where corrective feedback was used frequently. (JP)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

STANFORD RESEARCH INSTITUTE
Menlo Park, California 94025 · U.S.A.

ED110199

SCOPE OF INTEREST NOTICE
The ERIC Facility has assigned this document for processing to:
PS CG
In our judgement, this document is also of interest to the clearinghouses noted to the right. Indexing should reflect their special points of view.

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

CLASSROOM PROCESSES RELATED TO ABSENCE RATE

by

Margaret Needels
Jane Stallings

Presented to the
American Educational Research Association
1975 Annual Meeting
Washington, D.C.
March 31-April 3, 1975

ED 110 199

CLASSROOM PROCESSES RELATED TO ABSENCE RATE

Introduction

Most educators agree that absences are a matter of concern in the American education system. Some urban schools have reported that on any current school day more students are absent than present in school.*

Absences affect various levels within a school system: the student, classroom teachers, and the administration. The student is affected by the material that he has missed during his absence, and excessive absence can cause him to fall drastically behind his classmates in academic work. Some educators view absenteeism in the higher grades as a predictor of students who will drop out of school before graduating from high school.† Teachers are affected by absences through the disruption of continuity within their classrooms. A returning student must be presented with the material that was taught during his absence while the remainder of the class must be offered more advanced materials. A large number of children who are constantly absent from school can be a source of frustration to even the most conscientious, well-organized teacher. School administrators experience the impact of absences in the school system's budget. School systems usually receives their funds on the basis of average daily attendance, and consequently a school district can suffer economically as a result of a high absentee rate.

In an effort to bring absences to a minimum, several studies have investigated the causes of students' absences. The variables studied have included length of school day, weather, student grades, student and/or teacher attitudes, and school curriculum.‡ Most of these studies have

---

*"Truancy Overwhelms the Truancy Officer Here," New York Times, p. 1 (February 2, 1970).

†"A Report of the Study Group on School Attendance/Dropout," Study Group on School Attendance Dropouts, Table 17, Baltimore City Public Schools (December 1972).

‡N. Karweit, "Rainy Days and Mondays: An Analysis of Factors Related to Absence from School," John Hopkins Center for the Study of Social Organization of Schools" (November 1973).

19803

focused on junior or senior high school, the prevailing hypothesis being that older children have more autonomy in making the decision on attending school.

This paper is focused on absences in the first and third grades. It is an exploratory study attempting to reveal any correlation between instructional processes within a classroom and the average number of absences for that classroom. Do very young children have the power to decide whether or not they will attend school? The answer to this question would, perhaps, benefit school districts, teachers, and students.

Background

The data reported in this paper were collected as part of a larger study of the Follow Through Planned Variation Program. These data were collected during the 1972-73 school year, the fourth year of the study. The primary aim of the evaluation of Follow Through Planned Variation was to determine whether educational innovators had been able to implement their program of compensatory education. Seven educational programs (called sponsors), representing a variety of educational viewpoints, were selected for the study.

The seven Follow Through programs selected for study represented a wide spectrum of innovative educational theories. The range includes two models based upon the positive reinforcement theory (the University of Kansas and University of Oregon), a model based primarily upon the cognitive developmental theory of Jean Piaget (High/Scope Foundation), an open classroom model based upon the English Infant School theory (Education Development Center), and three other models drawn from Piaget, John Dewey, and the English Infant Schools (Far West Laboratory, University of Arizona, and Bank Street College).

Measurements

An observation method, called the Classroom Observation Instrument, was developed by Stanford Research Institute and used to assess program implementation. The Classroom Observation Instrument is structured to describe activities and interactions in a classroom. Through the use of prescribed codes, it yields a record of classroom activities, the classroom environment, the interactions between the teacher and/or aides and the children, and interactions among the children. This observation instrument was developed specifically for focusing on and recording the instructional methods, interpersonal interactions, and classroom atmosphere in ways necessary to reflect the variety of educational models.

The Instrument

The Classroom Observation Instrument (COI) contains three major sections:

- The Classroom Summary Information (CSI) section.
- The Physical Environment Information (PEI) section.
- The Classroom Observation Procedure (COP), which consists of three parts: The Classroom Check List (CCL), Five-Minute Observation Preamble (PRE), and Five-Minute Observation (FMO).

In a single observation day, the CSI and the PEI are completed once and the COP (which includes the CCL, the PRE, and the FMO) is completed four times an hour.

Classroom Summary Information

The Classroom Summary Information (CSI) section is designed for (1) coding the number of children enrolled and the number present on the observation day; (2) the number of teachers and aides assigned to the classroom; and (3) the number of volunteers or visitors present on the observation day. Also recorded in this section is the length of the school day.

Physical Environment Information

The Physical Environment Information (PEI) section provides space for coding information about the classroom setting, which includes the presence and use of specific equipment, instructional materials, games, toys, and displays in the classroom. The observer also records whether the classroom has movable tables and chairs or stationary desks in rows, whether seating is assigned during part of the day or self-selected, and whether children are assigned to groups by the teacher or aide or select their own work groups.

Classroom Observation Procedure

The Classroom Observation Procedure (COP) consists of three sections of codes that describe the classroom structure and process:

10995

- Classroom Check List (CCL)
- Five-Minute Observation Preamble (PRE)
- Five-Minute Observation (FMO).

The classroom observer completes the entire COP--the CCL, the PRE, and the FMO--approximately four times an hour or 16 to 20 complete COPs over a four- to five-hour observation day.*

Classroom Check List

As noted above, the Classroom Check List (CCL) is completed approximately four times an hour. The CCL is referred to as a "snapshot" of the classroom because it allows for coding relatively stable "pictures," at a given point in time, of the activities engaged in and the distribution of the adults and children in the classroom. A record is made of activities occurring, of child and adult grouping patterns, of adult roles, of child involvement, and of the materials used in the academic activities. For example, several activities may be taking place simultaneously in the classroom: a small group of children may be doing crafts under the guidance of a teacher aide, the teacher may be instructing a large group (over eight children) in reading, three children may be working independently on a science project, and four children may be using trucks and blocks in independent play. In this case, all of these activities and the number of individuals involved in each would be recorded on the CCL.

The Five-Minute Observation Preamble

The Five-Minute Observation Preamble (PRE) is designed for recording information about the activity in which the preselected focus person--whether child or adult--is actually engaged. This is done four times an hour. The observer focuses on the selected person just before the five consecutive minutes of observation begins and records: whether the focus person is an adult or child and his/her identification number; the CCL code number for the activity; the role of the adult--that is, whether the teacher, aide, or volunteer is observing, participating, or directing the activity, or not involved; the number of children involved; whether the activity in progress is a continuation of the previously observed

---

*The number of observations cannot be fixed because some hours are interrupted by recesses or other out-of-classroom events.

10005

activity (i.e., the preceding FMO); and the time the FMO was started. If, during the five-minute-observation period, there is a change in the activity in which the focus person is engaged, the observer records the activity actually taking place at the end of the time period in the designated space at the end of the FMO.

The Five-Minute Observation

The last part of the COP, the Five-Minute Observation (FMO), is coded four times an hour immediately after the Preamble and is used to record interactions among people in the classroom. One person, the preselected focus adult or child, is followed throughout the five-minute-observation period and the activities and interactions of which he/she is a part, and only these, are recorded.

Absences

The data on absences used in this analysis were obtained from school records.

Sample

The data presented here were obtained in Follow Through and Non-Follow Through classrooms across the country. The Non-Follow Through classrooms were observed in the same sites as Follow Through classrooms. A total of 108 first grade and 58 third grade classrooms are represented. In the larger study, of which this paper is a part, only classrooms in which at least 20 percent of the children had baseline test data were included in the analysis: This explains the smaller number of third grade classrooms. Table 1 shows the number of classrooms and sites included.

Table 1

CLASSROOMS AND SITES OBSERVED

	Number of Classrooms	Number of Sites
First grade		
Follow Through	84	25
Non-Follow Through	24	--
Total	108	25
Third grade		
Follow Through	45	14
Non-Follow Through	13	--
Total	58	14

19807

Methodology

The main focus of this paper is on correlational data that have been adjusted for the baseline entering Wide Range Achievement Test (WRAT) scores. An exploratory procedure was also used with a step-wise regression analysis.

Observation data were collected for three days. First, adult process data were collected on two days separate from the child behavior. Child behavior data were collected on one day by observing four children per classroom and observing each child five separate times for five minutes each.

The data reported here were computed over all classrooms, separated only by grade level. This procedure was used to investigate instructional processes and their relationship to child absence regardless of where they occurred.

From the data collected, 340 instructional variables were used in the correlations. The value assigned to a variable was the average number of times that specific variables occurred per five-minute observation during the total number of days observed. This was computed by classroom.

Absence data were obtained from the school records; these listed the number of days absent per child. Classroom means were computed from these data. There is no control for the length of the school year.

The problems of interpreting correlational data need to be mentioned. They concern such pitfalls as capitalizing on chance results and drawing invalid inferences from the correlations. The problem of capitalizing on chance is compounded by the large number of tests of significance that were computed. Of the 340 partial correlations computed with data on child absence, approximately 17 significant correlations ($p < .05$) would be expected to occur by chance if the variables were statistically independent. The findings reveal 56 first grade and 65 third grade correlations that were found to be significant. The problem is that there is no way of identifying which correlations occurred by chance. Variables that correlate similarly at both first and third grades probably can be interpreted with more confidence. The strongest type of statement that can be made when interpreting these correlations takes the form, "in classrooms where teachers were observed to be more positive toward children, the absence rate was lower."

Causal relationships cannot be inferred from correlational findings. Correlations were adjusted for baseline achievement scores in an attempt

39809

to eliminate any relationship between a large proportion of high achievement test scores and low number of absences within a classroom. The results of this study are significant enough to warrant further exploration into the reasons for absenteeism.

Relationship Between Days Absent and Instructional Process Variables

As stated previously, 56 variables for first grade and 65 variables for third grade were found to be significant ($p < .05$). Table 2 lists these variables. For the purpose of comparison, if a variable was significant only at one grade level, correlations are shown for both grades. A positive correlation between an instructional variable and days absent means that children were absent more often in classrooms where that instructional process occurred. A negative correlation between an instructional variable and days absent means that children were absent less often in classrooms where that process occurred.

First Grade Classrooms

Information recorded on the observation instrument includes materials used in the classroom. Two very similar variables that indicate the use of audiovisual equipment showed a negative correlation with absences (see Table 2). Apparently, first grade classrooms in which audiovisual equipment is used as an instructional aid experience fewer absences than other classrooms.

Activities of the classroom personnel and grouping arrangements of children also were related to the average number of pupil absences in the first grade. The variables indicating that the teacher or aide was engaged in a task without children showed a positive correlation with days absent; thus, classrooms where the teacher or aide was occupied by activities that did not include children, such as grading papers, preparing assignments, or cleaning up, show a positive correlation with absences. Absences were also positively correlated in classrooms where adults worked with large groups of children (i.e., more than eight).

As might be expected, individualized attention appears to be an important factor in daily attendance. (The 12 variables relating to individualized attention are listed in Table 2.) All of these variables indicating individualized attention show a negative correlation with days absent from school. The four most favorable correlations were adult with one child, one child with any adult, one child with any adult in reading, and personalized instruction in reading.

ED 0 0 9

Table 2

PARTIAL CORRELATION OF DAYS ABSENT WITH INSTRUCTIONAL VARIABLES
108 FIRST GRADES AND 58 THIRD GRADES
(Follow Through and Non-Follow Through)

Variables		First Grade		Third Grade	
No.	Name	r	p<	r	p<
MATERIALS					
38	Audio visual equipment used	-.19	.05	-.06	
237	Audio visual equipment/Academic Activities	-.22	.05	-.09	
241	Puzzles, games/Academic Activities	-.08		-.32	.05
ACTIVITIES					
70	Sewing, cooking, pounding	-.11		-.32	.05
245	Story, music, dancing/Longitudinal	-.04		-.28	.05
252	Sewing, cooking, pounding/Longitudinal	-.11		-.28	.05
256	Practical skills acquisition/Longitudinal	.16		-.26	.05
TIME SPENT AND ACADEMIC INTERACTION					
140	Total weight in math groupings	.11		.32	.05
163	Total weight in reading groups	.18		.32	.05
228	Total weight in arts, crafts groupings	.04		.38	.01
GROUPINGS					
Adults in the Classroom					
108	Overall occurrences of adults without children	.22	.05	.08	
262	Average number of adults in the classroom/ Longitudinal	.26	.01	.09	
Adults Without Children					
85	Teacher without children	.25	.01	-.20	
103	Adult without children	.22	.05	.08	
229	Teacher involved/Classroom Management	.03		-.27	.05
231	Volunteer involved/Classroom Management	.29	.01	.36	.01
Individualized Attention					
86	Teacher with one child	-.29	.01	-.16	
104	Adult with one child	-.36	.001	-.19	
109	One child with any adult	-.35	.001	-.21	

10010

Table 2 (Continued)

PARTIAL CORRELATION OF DAYS ABSENT WITH INSTRUCTIONAL VARIABLES
108 FIRST GRADES AND 58 THIRD GRADES
(Follow Through and Non-Follow Through)

Variables		First Grade		Third Grade	
No.	Name	r	p<	r	p<
Individualized Attention (Continued)					
124	One child with aide/Math	-.23	.05	-.20	
132	One child with any adults/Math	-.22	.05	-.15	
143	One child with teacher/Reading	-.26	.01	-.22	
155	One child with any adults/Reading	-.34	.001	-.22	
164	Personalized instruction in reading	-.34	.001	-.24	
257	Teacher with one child, academic activities/Longitudinal	-.23	.05	-.12	
259	Volunteer with one child, academic activities/Longitudinal	-.22	.05	-.10	
261	Any adult with one child, any activity/ Longitudinal	-.31	.01	-.15	
421a	Adults attentive to individual children	-.26	.01	-.12	
Adults with Two Children					
121	Two children with teacher/Math	.00		-.29	.05
125	Two children with aide/Math	.01		.35	.01
144	Two children with teacher/Reading	-.19	.05	-.19	
156	Two children with any adults/Reading	-.20	.05	-.21	
Adults with Small Group					
122	Small group with teacher/Math	-.07		-.34	.01
Adults with Large Group					
89	Teacher with large group	.06		.33	.05
95	Aide with large group	.31	.01	.40	.01
112	Large group of children with any adult	.23	.05	.47	.001
123	Large group with teacher/Math	.11		.44	.001
127	Large group with aide/Math	.30	.01	.18	
135	Large group with any adults/Math	.29	.01	.52	.001
146	Large group with teacher/Reading	.12		.33	.01
158	Large group with any adults/Reading	.25	.01	.44	.001
Independent Children					
114	One child independent	-.27	.01	-.25	
115	Two children independent	-.23	.05	-.20	

10011

Table 2 (Continued)

PARTIAL CORRELATION OF DAYS ABSENT WITH INSTRUCTIONAL VARIABLES
108 FIRST GRADES AND 58 THIRD GRADES
(Follow Through and Non-Follow Through)

Variables		First Grade		Third Grade	
No.	Name	r	p<	r	p<
Independent Children (Continued)					
118	All children independent	-.17		-.36	.01
136	One child independent/Math	-.22	.05	-.29	.05
137	Two children independent/Math	-.03		-.26	.05
138	Small group of children independent/Math	-.09		-.41	.01
142	All children independent/Math	-.18		-.48	.001
159	One child independent/Reading	-.33	.001	-.27	.05
160	Two children independent/Reading	-.27	.01	-.21	
165	All children independent/Reading	-.14		-.31	.05
204	Two children independent/Science	.20	.05	-.16	
INTERACTIONS					
Child Questioning					
346a	Child commands, requests, and direct questions, nonacademic	-.26	.01	-.03	
347a	Child commands, requests, and direct questions, academic	-.26	.01	-.12	
348a	Child open-ended questions, nonacademic	.17		-.31	.05
350a	Child questions to adults	-.32	.001	-.15	
450a	All child open-ended questions	.14		-.32	.01
478a	Child commands, requests, and direct questions, academic	-.05		-.32	.05
Adult Questioning					
351a	Adult commands, requests, and direct questions to group of children, non-academic	-.04		.30	.05
353a	Adult commands, requests, and direct questions to groups of children, academic	.20	.05	-.25	
355a	Adult open-ended questions to children, nonacademic	.00		-.28	.05
452a	Adult open-ended questions to children	-.05		-.36	.01

19842

Table 2 (Continued)

PARTIAL CORRELATION OF DAYS ABSENT WITH INSTRUCTIONAL VARIABLES
108 FIRST GRADES AND 58 THIRD GRADES
(Follow Through and Non-Follow Through)

Variables		First Grade		Third Grade	
No.	Name	r	p<	r	p<
Child Responsiveness					
363a	Child group responses to adult academic, command, request, or direct questions	.22	.05	.25	
368a	Child responses to adult open-ended questions	-.04		-.36	.01
371a	Child extended response to adult open-ended question	-.16		-.31	.05
585c	Child's extended response to questions	-.17		-.34	.01
Adult Responsiveness					
364a	Adult responses to child requests or questions, academic	-.26	.01	-.10	
365a	Adult responses to child requests or questions, nonacademic	-.24	.05	-.18	
367a	Adult responds to child question with direct question	-.22	.05	-.01	
453a	Adult response to child's question with a question	-.23	.05	-.02	
495a	Adult responses to child requests or questions, academic	-.07		-.26	.05
Adult Feedback					
400a	Adult reinforcement with token, behavior	.33	.001	-.02	
403a	Adult praise, behavior	.32	.001	.02	
405a	All adult corrective feedback to children	.09		.48	.001
409a	Adult negative corrective feedback, behavior	.04		.37	.01
410a	Adult positive corrective feedback, other task-related	.13		.40	.01
411a	Adult negative corrective feedback, other task-related	.07		.36	.01
432a	Adult punishment of children	.13		.54	.001
447a	Adult neutral corrective feedback, task-related	.02		.38	.01
448a	Adult neutral corrective feedback, behavior	.16		.41	.01
458a	All adult negative corrective feedback	.05		.51	.001
465a	Adult feedback to children for behavior	.21	.05	.34	.01

0013

Table 2 (Continued)

PARTIAL CORRELATION OF DAYS ABSENT WITH INSTRUCTIONAL VARIABLES
108 FIRST GRADES AND 58 THIRD GRADES
(Follow Through and Non-Follow Through)

Variables		First Grade		Third Grade	
No.	Name	r	p<	r	p<
Adult Feedback (Continued)					
470a	All adult neutral corrective feedback	.09		.38	.01
567c	Total interactions, behavior control	.20	.05	.16	
578c	Adult neutral corrective feedback, task-related	.21	.05	.41	.01
579c	Adult neutral corrective feedback, behavior	.25	.01	.29	.05
589c	All adult negative corrective feedback	.14		.32	.01
596c	Adult feedback to children for behavior	.25	.01	.30	.05
601c	All adult neutral corrective feedback	.19	.05	.30	.05
Instruction					
375a	Adult instructs an individual child	-.06		-.34	.01
Child Attending					
416a	Children attentive to adults, nonacademic	.06		.35	.01
417a	Children attentive to adults, academic	.28	.01	.45	.001
464a	Child attentive	.14		.29	.05
Conversational Statements					
344a	Individual child verbal interactions with adult	-.17		-.29	.05
388a	Child task-related comments to adults	-.01		-.28	.05
516c	Social interaction among children	.03		.43	.001
Affect					
460a	All child positive affect	-.20	.05	-.27	.05
462a	All positive behavior	-.27	.01	-.28	.05
463a	All negative behavior	.02		.48	.001
Child Behavior					
573c	All child nonverbal	.21	.05	.07	

Table 2 (Concluded)

PARTIAL CORRELATION OF DAYS ABSENT WITH INSTRUCTIONAL VARIABLES
108 FIRST GRADES AND 58 THIRD GRADES
(Follow Through and Non-Follow Through)

Variables		First Grade		Third Grade	
No.	Name	r	p<	r	p<
Communication Focus					
438a	Adult communication or attention focus, one child	-.25	.01	-.28	.05
441a	Adult communication or attention focus, large groups	.15		.37	.01
471a	Adults attentive to large group	.21	.05	.34	01
Miscellaneous					
	Adult movement	.30	.01	.14	

10915

Two variables that recorded the number of adults in the classroom showed a positive correlation with number of days absent, which may indicate that a higher adult-student ratio is only one aspect to be considered when evaluating the effectiveness of classroom personnel. What the adult is doing may be more important than sheer number of adults. In classrooms where adults were less involved with the children or worked only with large groups a significant positive correlation with absences was likely, while classrooms where adults interacted with children on a one-to-one basis had a negative correlation with absences.

Five variables that indicate that children were allowed to work on their own without adults showed a negative correlation with absences. In particular, these variables describe one or two children working independently in reading or math.

In a classroom atmosphere where children asked questions of the adults, child absences correlate negatively. Three variables that describe child questioning correlated negatively with absences.

In classrooms where adults responded to children's questions, the children were absent less frequently. Two other variables that reflect specific types of adult responses to the questions of children also were related to a higher school attendance. These describe an adult responding to a child's question with another question. All of the preceding variables describe situations where adults are responsive to children, two of them suggest that adults are encouraging the children to think by asking further questions, rather than just providing an answer.

The average number of absences tended to increase in classrooms where children observed an adult engaged in an academic activity; i.e., the children were not actively engaged in their learning but instead were observing or listening to an adult. Also, classrooms that had small groups of children responding in chorus to adult questions during academic instruction showed a positive correlation to absences. Both of these variables suggest a lack of individualized attention, and individualized attention is an instructional process that was previously identified as having a significant negative correlation with absences.

Instructional variables that indicate adult feedback to children regarding their behavior in the classroom show a positive correlation with absences. These correlations occurred whether the feedback was praise for acceptable behavior or criticism for unacceptable behavior.

10016

Third Grade Classrooms

The kind of materials used in the classroom, which was related to the children's absences, changes from first to third grade. In third grade classrooms where puzzles and games were used in academic activities, children's absences correlate negatively (see Table 2); whereas in first grade classrooms, attendance was related to higher use of audio-visual equipment.

In the third grade, certain classroom activities seemed to be associated with the absences. In classrooms where children engaged in activities that allowed for more motor activity, such as sewing, cooking, carpentry, stories, music, dancing, or acquisition of practical skills, absences are negatively correlated. Absence is positively correlated with a higher percentage of the time spent in reading and math.

It should be noted here that these variables only record the prevailing activity and do not identify a classroom where children are taught reading and math in what appears to be a different type of activity, such as carpentry or cooking. However, if a conventional reading or math activity is occurring, it is recorded as such. Therefore, the occurrence of activities such as sewing, cooking, and so on, does not show that an academic subject is not being taught.

In direct opposition to the first grade findings regarding the teacher or aide without children, in classrooms where the third grade teacher was involved in classroom management tasks, the children's absence correlates negatively. Third grade children may have less need of the teacher's attention and may be more independent than first grade children, so that when the teacher engages in classroom management tasks, attendance is not adversely affected.

As in the first grade, absences correlated positively with third grade children spending a large portion of the school day in large groups with adults. Seven variables, which represented children in large groups with adults, showed a positive correlation with the absences. These were not limited, but referred to large group activities in reading and math and all other activities. Two interaction variables that indicate adults focusing their attention on a large group or speaking to a large group correlate positively with absence. (Adults observing or listening to a large group was also a significant variable for first grade children.) Conversely, when children received individualized attention, the correlation was negative with absences. Adult attention to one child also correlated negatively with absences in first grade classrooms.

19317

As in the first grade, in third grade classrooms where children were more independent the correlation was negative. These correlations occurred in all instances of children operating independently in activities, and they also occurred whether the child was working alone, with another child, or in a small group in math.

Third grade classrooms where children asked questions and where adults were responsive to the children showed a significant negative correlation with absences.

In third grade classrooms where adults asked children open-ended questions, the correlation was negative. This finding is further emphasized by two variables that relate to child responses to open-ended questions: when children responded to an adult's open-ended question or gave an extended response to any type of question, the correlation was also negative. However, the correlation was positive in classrooms where adults commanded or asked direct questions of groups of children in non-academic activities.

Absences correlated positively in classrooms where children were more often not interacting but were listening to or observing adults. A high correlation (.45) with absence was found for children attentive to or observing adults in an academic activity. This was true for both first and third grade classrooms where the children's outward behavior was passive, which indicates that they were not actively involved in the academic activity.

Variables that reflect another dimension of an interactive environment indicated that the correlation was negative when the conversation was task-related. However, when the interaction was purely social, the correlation was positive. (Social interactions included all of the general comments children make among themselves, both positive and negative; these were mainly greetings, personal compliments, or criticisms.)

Consistent with some of the first grade findings, many types of adult feedback were related to children's absence from school. Not surprisingly, adult punishment of children had the highest correlation of .54. This means that in classrooms where children were often punished, children also were absent more often. This finding could be of interest to those state legislations who are currently passing laws that will make corporal punishment in the schools illegal without the written consent of the parent. Another high correlation with absences was all adult negative corrective feedback where the correlation was .51. A total of 15 feedback variables showed a significant correlation with absences. In the first grade, the feedback variables correlated primarily with

10018

behavior. However, in the third grade, the feedback variables were related to nonacademic task activities and academic activities as well as to behavior. In any event, feedback, whether negative, neutral, or positive, always had an adverse relationship with the attendance of third grade children.

The correlations of the variables that describe feelings or affect were similar for third grade and first grade. Classrooms with the more positive behavior showed a negative correlation to absences. In addition, in third grade classrooms where more negative behavior was observed, whether on the part of adults or children, a positive correlation of .48 was obtained.

Conclusions

These data suggest that in both first and third grade classrooms, children may be absent less frequently in classrooms where there is a higher degree of child independence, child questioning, adult response, individualized instruction, and open-ended questions. Also, in classrooms where children and adults show more positive affect the children are absent less often.

Child absences correlate positively in both first and third grade classrooms where children work in large groups more often and where adults used direct questions in academic work and more often used corrective feedback.

Findings for the third grade indicate that in classrooms where children were punished more often, the correlation was highly significant. In addition, in classrooms with a high occurrence of negative affect on the part of teachers and students, absences correlated positively.

Although the data are correlational and causal effects cannot be attributed to the instructional processes, the correlations are high enough, and the sample large enough, to suggest some directions for further research in absenteeism.

Absence Rate for Follow Through Sponsors

As stated earlier, the Follow Through sponsors represent several approaches to education. The overall average of classroom absences

across sites by sponsor can supply further information regarding the relationship of instructional process to absences.

A report of Follow Through sponsor absences by grade level indicates that at the first grade level, those sponsors who used more highly structured environments, materials, and interactions also had a higher absence rate (see Table 3). Two sponsors, Far West Labs and University of Arizona, who used a wide variety of activities and materials and have classrooms where children exhibited independent behavior, had the lowest absence average of all sponsors at both the first and third grade levels. The data on Table 3 also indicate that the absences for all sponsors and Non-Follow Through diminished from first grade to third grade. While the means and standard deviations of Follow Through and Non-Follow Through were very similar, Far West's and University of Arizona's absences were considerably lower than Non-Follow Through.

Table 3

MEANS AND STANDARD DEVIATIONS OF DAYS ABSENT
FOR SPONSORS AND NON-FOLLOW THROUGH,
1972-73 SCHOOL YEAR

	First Grade		Third Grade	
	Mean	Standard Deviation	Mean	Standard Deviation
Far West Lab	9.81	1.80	7.99	1.40
University of Arizona	12.37	4.34	6.34	0.78
Bank Street College	14.90	6.41	9.64	6.42
University of Oregon	17.12	3.72	12.12	1.63
University of Kansas	15.34	16.70	10.28	2.77
High/Scope	13.36	3.25	--	--
EDC	14.25	10.90	10.53	7.46
All Follow Through	14.15	6.33	9.50	4.30
Non-Follow Through	14.05	5.65	9.59	2.59

Stepwise Regression Analysis

Obviously, many of the classroom observation variables included in the partial correlation analysis are closely related, either because of

the way they are defined or because certain processes occur together in the classroom. Because of the relationship among the process variables, it was impossible to determine from the partial correlation the unique contribution made by each variable to the prediction of the number of days absent. Because of this, it was decided to run an exploratory analysis using stepwise regressions.

This analysis is an attempt to identify an entire process that might be correlated with days absent. It should be noted that all of these variables combined and in the exact order listed form the multiple R of .819 for first grade and .829 for third grade (see Table 4).

A set of 38 process variables was chosen to be entered into the stepwise regression. Based on previous findings, the process variables selected had shown to be strong predictors of outcomes. A stepwise multiple linear regression was run separately for each grade level with "days absent" as the dependent variable and the set of selected process variables and the baseline WRAT score as independent variables. The baseline WRAT score was placed in the regression on the first step, and process variables were added one at a time until a total of 20 were entered. Variables were listed until further significant increase in the R^2 did not occur.

For first grade, 14 process variables and for third grade, seven variables showed significant contribution.

Beta weights for all the variables are listed. These values are those shown at the last step (Step 15 for first grade and Step 7 for third grade). The sign of the beta weights remained stable with the sign of the correlations. By ranking the value of the beta weights, one can determine the power of prediction each variable would have to the number of days absent.

The WRAT R^2 values at the first step (where WRAT was entered) were very small, indicating that the WRAT accounts for very little of the variance for the absence rate. Educators have different opinions as to whether student achievement correlates highly with absences.* Although this analysis is conducted at the classroom level rather than individual child, the value of WRAT scores is low enough to stimulate further research.

---

*K. J. Gurecki and S. R. Wursten, "A Study of the Relationship of the Length of Continuous Attendance at a Single School to Reading and Achievement Test Scores," University of Arizona (July 1974).

0021

Table 4

STATISTICS FROM THE STEPWISE REGRESSION OF THE BASELINE WRAT AND SELECTED COI VARIABLES ON THE OUTCOME SCORES

Step	Variable Number	Variable Name	Multiple R	R^2	Beta Weights
Dependent Variable: Days Absent--Positive and Negative					
First Grade (N=105)					
1		F71 WRAT	.118	.014	.06269
2	104	Adult with one child	-.379	.144	-.18589
3	231	Volunteer involved classroom management	.475	.226	.20136
4	596c	Adult feedback to children for behavior	.539	.290	.18218
5	471a	Adults attentive to large group	.604	.365	.16665
6	462a	All positive behavior	-.638	.406	-.09166
7	85	Teacher without children	.667	.445	.21860
8	256	Practical skills acquisition	.691	.478	.23136
9	127	Large group with aide math	.710	.504	.28029
10	417a	Children attentive to adults, academic	.727	.529	.23564
11	453a	Adult responds to child's question with a question	-.754	.568	-.23003
12	353a	Adult commands, requests, and directs questions to groups of children, academic	.770	.593	.25093
13	601c	All adult neutral corrective feedback	.788	.621	.26860
14	585c	Child's extended response to question	-.808	.653	-.20580
15	125	Two children with aide	.819	.670	.13755
Third Grade (N=57)					
1		F69 WRAT	.272	.074	.07498
2	463a	All negative behavior	.536	.288	.34022
3	125	Two children with aide math	.624	.390	.28568
4	114	One child independent	.710	.504	-.33097
5	371a	Child extensive response to adult open-ended questions	-.758	.575	-.32399
6	417a	Children attentive to adults, academic	.801	.642	.30357
7	351a	Adult commands, requests, and directs questions to groups of children, nonacademic	.829	.687	.23189

At first grade, four of the variables that entered the regression are negatively correlated with absences. All four of these usually represent components of an open, flexible classroom where children have the freedom to question and work independently. Three of these four showed a level of significance in the partial correlation.

In the third grade, two variables showed a negative sign, and, as in the first grade, these variables reflect an open kind of classroom, one where children work independently and give elaborate responses to thought-provoking questions. One of the two was significantly correlated in the partial correlation.

Summary

As stated earlier in this paper, caution must be used when interpreting correlation data, and policy decisions should not be made on the basis of these data. However, in this study, those correlations that show a level of significance at both the first and third grades would appear to have some indication of instructional processes that might be related to absences. At the same time, one must remember that certain instructional processes might be effective for first grades and not third grades, as well as the reverse.

Both first and third grades showed a significant correlation in those variables that indicated that children worked independently and the occurrence of adult feedback. With the increasing interest in individualized instruction in the American school systems, these instructional variables might be investigated in future studies. Perhaps individualization in the classroom not only benefits the student academically but decreases his absences.

Even though this study is exploratory, the findings are strong enough to raise an intense interest in this area. Future findings could aid teachers in developing instructional processes that would encourage children to attend school and subsequently decrease absences, an effect that would benefit all levels of the educational system.